

Date: November 3, 2015

To: Thomas J. Bonfield, City Manager
Through: W. Bowman Ferguson, Deputy City Manager
From: Donald F. Greeley, Director, Water Management
Subject: Professional Engineering Services for the East-West Reinforcing Main Route Study - Award of Contract to Hazen and Sawyer, P.C.

Executive Summary

In February 2015, the Department of Water Management (DWM) issued a Request for Qualifications (RFQ) for Professional Engineering Services to conduct a route study for the East-West Reinforcing Main (EWRM). The EWRM is the final segment of a water transmission main system that connects the Williams Water Treatment Plant and several City elevated storage tanks (ESTs). It also replaces century-old transmission mains at the end of their useful life. The EWRM will start where the Hillandale Waterline Replacement projects ended (at Peabody St. and Main St.) and proceed easterly and around the downtown area to the East Durham EST on Pettigrew St. The boundaries of potential routes are shown in Attachment 1, along with existing transmission/reinforcing mains.

The DWM received four responses to the RFQ, and City staff selected the engineering firm Hazen and Sawyer, PC. A scope of services has been negotiated in the amount of \$289,998.00. Evaluation criteria include system performance, operation and maintenance, environmental impacts, permitting, constructability, community impacts, and cost. The study will preliminarily define outreach needs to residential, commercial, and commuter stakeholders.

Pre-design field services such as field survey and subsurface utility locating are also included to verify pipeline constructability and identify major conflicts. The task results and alternatives analysis will be presented in a Preliminary Engineering Report. A separate RFQ will be advertised for the pipeline design, permitting, bidding, and construction-related services after a final route has been approved by the City.

Recommendation

The Department recommends the City Council:

1. Authorize the City Manager to execute a contract with Hazen and Sawyer, for the EWRM Route Study for \$289,998.00.
2. Establish a contingency fund for the contract in an amount not to exceed \$29,002.00; and
3. Authorize the City Manager to negotiate change orders for the contract provided that the total project cost does not exceed \$319,000.00.

Background

Between 2009 and 2012, a 36-inch water transmission main was constructed from the Williams Water Treatment Plant (WTP) to the intersection of Main Street and Peabody Street as Phases 1 and 2 of the Hillandale Waterline Replacement project. Between 2012 and 2014, the 30-inch Southern Reinforcing Main (SRM) was constructed that connected the Ellis EST on Pettigrew St. to the new Angier St. EST. The boundaries of potential routes are shown in Attachment 1, along with existing transmission/reinforcing mains.

The EWRM will connect the gap between the Hillandale and SRM projects with a 36-inch-diameter transmission main, and the completed transmission main system will provide reliable capacity and redundancy for sustained supply from the Williams WTP to vital components of the City's water main system.

A route study will identify and analyze alternative routes with consideration given to hydraulic efficiency/system performance, long-term operation and maintenance, environmental impacts, permit requirements, constructability, community impacts, and cost. The study will preliminarily define outreach needs to residential, commercial, and commuter stakeholders; and develop a public outreach plan.

Pre-design field services such as field survey and subsurface utility locating are also included to verify pipeline constructability and identify major conflicts. The task results and alternatives analysis will be presented in a Preliminary Engineering Report. A separate RFQ will be advertized for the pipeline design, permitting, bidding, and construction-related services after a final route has been approved by the City.

Issues and Analysis

The Department of Water Management issued an RFQ for professional engineering services for a study to develop potential route(s) for the final phase of the East-West Reinforcing Main in February 2015. Four firms responded to the RFQ:

CDM Smith, Inc.
Hazen and Sawyer, P.C.
McKim and Creed, Inc.
WK Dickson & Co., Inc.

Based on their proposal and experience Hazen and Sawyer was selected as the firm best suited to perform the route study.

Alternatives

Alternative 1: Do not enter in to a contract with Hazen and Sawyer and attempt to develop a route for the final phase of the EWRM with City staff. City personnel do not currently have the availability or resources to analyze and develop a suitable route for such a large scale project. Under this alternative a suitable route is not developed for the final phase of the EWRM and the completion of the transmission main is delayed.

Alternative 2: Do not enter in to a contract with Hazen and Sawyer and delay or cancel the EWRM Route Study project. Under this alternative a suitable route is not developed for the final phase of the EWRM and the completion of the transmission main is delayed.

Financial Impact

The immediate cost to the City for the contract with Hazen and Sawyer, PC is \$289,998.00. The funds for the contract are available as outlined below:

Base Contract Fund:	4100P002-731004-P042A	\$289,998.00
Contingency Fund:	4100P002-731900-P042A	\$29,002.00
Total Contract Amount:		\$319,000.00

SDBE Summary

The Equal Opportunity/Equity Assurance Department reviewed the proposal submitted by Hazen and Sawyer, P. C. to determine compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting. It was determined that Hazen and Sawyer, P. C. is in compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting.

SDBE REQUIREMENTS

There are no MSDBE or WSDBE goals for this project.

Hazen and Sawyer, P. C. will subcontract to the following certified firms:

Firm	ID	City/State	Amount	% of Contract
Hollins Construction Services, Inc.	MSDBE	Wake Forest, NC	\$ 8,976.00	3.1%
CH Engineering	WSDBE	Raleigh, NC	\$ 41,105.00	14.1%
A1 Consulting Group, Inc.	SDBE	Morrisville, NC	\$ 12,200.00	4.2%

WORKFORCE STATISTICS

Workforce statistics for Hazen and Sawyer, P.C. are as follows:

Total Workforce	773	
Total Females	206	(27%)
Total Males	567	(73%)
Black Males	34	(4%)
White Males	458	(59%)
Other Males	75	(10%)
Black Females	16	(2%)
White Females	150	(20%)
Other Females	40	(5%)